

REMARKS

Claims 1-10 and 15-27 are all the claims pending in the present Amendment. Claims 1, 4, 6, 7, 9, 10, 15, 16, 18-21 and 23-27 have been amended. Support for the amendment to claim 1 can be found at, for example, pages 4 and 7 of the present specification. Claims 11-14 have been canceled. The specification at pages 29-30 has been amended, as explained below. No new matter is added. Accordingly, entry of the present Amendment is requested.

Response to Claim Objections

Referring to page 2 of the Office Action, the Examiner has objected to claims 16, 18-21 and 23-27 alleging various informalities. Without conceding to the merits of the Examiner's objections, claims 16, 18-21 and 23-27 have been amended, as set forth above, to address the informalities noted by the Examiner. Thus, Applicants respectfully request that the Examiner withdraw these objections.

Response to Claim Rejections under 35 U.S.C. § 112

Referring to Paragraph No. 7 at page 2 of the Action, claims 1-27 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Specifically, the Examiner indicates that the phrases "X¹ and Ar³ bond to adjacent carbon atoms in the aromatic ring of..." and "X³ and Ar⁴ bond to adjacent carbon atoms in the aromatic ring of..." are indefinite. The Examiner explains that the scope of the claim is not clear given their claim requirements because Ar³ and Ar⁴ were defined earlier as either trivalent aromatic hydrocarbon groups or trivalent heterocyclic groups and a heterocyclic group is not necessarily an aromatic group. Also, the Examiner states that an heterocyclic aromatic group does not necessarily have adjacent carbons.

Claim 1 has been amended to recite that Ar¹ and Ar² each independently represent a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group having adjacent carbon atoms.

The specification defines the trivalent aromatic hydrocarbon group as an atomic group in which three hydrogen atoms are removed from a benzene ring or condensed ring of an aromatic hydrocarbon, and the number of carbon atoms is usually 6-60, and preferably 6-20 (*see* page 4). The specification defines the trivalent heterocyclic group as an atomic group in which three hydrogen atoms are removed from a heterocyclic compound, and the number of carbon atoms is usually 4-60, and preferably 4-20 (*see* page 7).

Regarding claim 6, the Examiner indicates that “y” is used twice as a subscript in a formula but “y” is not defined. Also, the Examiner indicates that the last line defines “b” but “b” is not present elsewhere in the claim. Claim 6 and the specification (at page 29) have been amended to address these criticisms.

Regarding claim 7, the Examiner indicates that the variables “f” and “g” are not defined in formula (11).

Formula (11) has been deleted from claim 7. Thus, the rejection is now moot.

Accordingly, withdrawal of the § 112, second paragraph, rejection is respectfully requested.

Response to Claim Rejections under 35 U.S.C. § 102

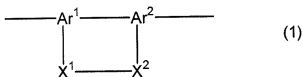
Referring to Paragraph No. 13 at page 3 of the Action, claims 1-11, 13 and 15-27 are rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by WO 2004039859 (Doi), with corresponding U.S. Patent Application Publication No. 2008/0138651 being used as the English language equivalent.

Without acquiescence in the merits of the rejection, and to advance prosecution, Applicants file herewith a verified English translation of their priority document (JP 2003-343243) to perfect their claim to priority and remove Doi as § 102(a) prior art. Support for claims 1-10 and 15-27 can be found, for example, in claims 1-22 of the priority document.

Referring to Paragraph No. 38 at page 14 of the Action, claims 1, 2, 6, 8-11, 13, 15 and 18-27 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent Application Publication No. 2003/0168656 (Kobayashi).

Applicants traverse and respectfully request the Examiner to reconsider in view of the following remarks.

Claim 1 as amended recites a polymer light emitting material comprising a compound exhibiting light emission from the triplet excited state in the form of a composition with a polymer compound having a repeating unit represented by the formula (1) and having a polystyrene-reduced number-average molecular weight of 10^3 to 10^8 .



In formula (1), Ar¹ and Ar² each independently represent a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group having adjacent carbon atoms; X¹ and X² each independently represent O, S, C(=O), S(=O), SO₂, C(R¹)(R²), Si(R³)(R⁴), N(R⁵), B(R⁶), P(R⁷) or P(=O)(R⁸) (wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ each independently represent a hydrogen atom, halogen atom, alkyl group, alkyloxy group, alkylthio group, aryl group, aryloxy group, arylthio group, arylalkyl group, arylalkyloxy group, arylalkylthio group, acyl group, acyloxy group, amide group, acid imide group, imine residue, amino group, substituted amino group, substituted

silyl group, substituted silyloxy group, substituted silylthio group, substituted silylamino group, monovalent heterocyclic group, heteroaryloxy group, heteroarylthio group, arylalkenyl group, arylolefinyl group, carboxyl group, alkoxycarbonyl group, aryloxycarbonyl group, arylalkyloxycarbonyl group, heteroaryloxycarbonyl group or cyano group; (R^1 and R^2) or (R^3 and R^4) may mutually be connected to form a ring; X^1 and X^2 are not the same; X^1 and Ar^2 bond to adjacent carbon atoms in the aromatic ring of Ar^1 ; and X^2 and Ar^1 bond to adjacent carbon atoms in the aromatic ring of Ar^2 .

Kobayashi does not disclose a composition containing a polymer having a repeating unit of formula (1) (*i.e.*, wherein X^1 and X^2 are not the same) and a compound exhibiting light emission from the triplet excited state as recited in claim 1. Therefore, the presently claimed invention is not anticipated by Kobayashi.

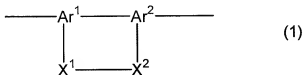
Accordingly, Applicants respectfully request the reconsideration and withdrawal of the § 102 rejection of claims 1, 2, 6, 8-11, 13, 15 and 18-27 based on Kobayashi.

Referring to Paragraph No. 57 at page 18 of the Action, claims 1-8, 10, 11, 13 and 15-17 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by EP 1344788 (Oguma).

Applicants traverse and respectfully request the Examiner to reconsider in view of the following remarks.

The Examiner cites Oguma as disclosing a repeating unit within the scope of formula (1) of claim 1.

Claim 1 as amended relates to a repeating unit represented by the formula (1):



wherein Ar^1 and Ar^2 each independently represent a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group having adjacent carbon atoms; X^1 and X^2 each independently represent O, S, $\text{C}(=\text{O})$, $\text{S}(=\text{O})$, SO_2 , $\text{C}(\text{R}^1)(\text{R}^2)$, $\text{Si}(\text{R}^3)(\text{R}^4)$, $\text{N}(\text{R}^5)$, $\text{B}(\text{R}^6)$, $\text{P}(\text{R}^7)$ or $\text{P}(=\text{O})(\text{R}^8)$ (wherein $(\text{R}^1$ and $\text{R}^2)$ or $(\text{R}^3$ and $\text{R}^4)$ may mutually be connected to form a ring); X^1 and X^2 are not the same; X^1 and Ar^2 bond to adjacent carbon atoms in the aromatic ring of Ar^1 ; and X^2 and Ar^1 bond to adjacent carbon atoms in the aromatic ring of Ar^2 .

Oguma does not explicitly disclose that when $-\text{X}^1-\text{X}^2-$ is $-\text{C}(\text{R})^2-\text{C}(\text{R}^2)-$ and Ar^1 and Ar^2 are benzene rings (*e.g.*, compound 31) that the two “ $-\text{C}(\text{R})^2-$ ” in $-\text{C}(\text{R})^2-\text{C}(\text{R}^2)-$ are not the same. Thus, Oguma does not anticipate the presently claimed invention.

Accordingly, Applicants respectfully request the reconsideration and withdrawal of the § 102 rejection of claims 1-8, 10, 11, 13 and 15-17 based on Oguma.

Response to Claim Rejections under 35 U.S.C. § 103

Referring to Paragraph No. 82 at page 28, claims 12 and 14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Doi as applied to claims 1-11, 13 and 15-27 above, and further in view of applicant's admitted prior art (AAPA). Referring to Paragraph No. 89 at page 30, claims 12 and 14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kobayashi as applied to claims 1, 2, 6, 8-11, 13, 15 and 18-27 above, and further in view of applicant's admitted prior art (AAPA).

Without admitting that these rejections are appropriate, claims 12 and 14 have been canceled. Thus, the rejections are now moot. Accordingly, withdrawal of the §103 rejections of claims 12 and 14 is respectfully requested.

Referring to Paragraph No. 96 at pages 31-32 of the Action, claims 7, 16 and 17 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kobayashi as applied to claims 1, 2, 6, 8-15 and 18-27 above, in view of AAPA, and further in view of Oguma.

Claims 7, 16 and 17 depend from claim 1, and thus, are patentable by virtue of their dependencies from claim 1 which is patentable for the reasons discussed above. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the § 103 rejection of claims 7, 16 and 17.

Referring to Paragraph No. 107 at page 37 of the Action, claims 1 and 3-5 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kobayashi as applied to claims 1, 2, 6, 8-15 (sic 8-11, 13 and 15) and 18-27 above, in view of AAPA, and further in view of U.S. Patent Application Publication No. 2002/0028347 (Morrocco).

In view of the above (in particular, the deletion of formula (2) from claim 1), withdrawal of the §103 rejection of claims 1 and 3-5 is respectfully requested.

Response to Double Patenting Rejection

Referring to Paragraph No. 118 at page 40 of the Action, claims 1-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1-9, 23-26 and 28-30 of copending Application No. 10/532,937 (Doi) in view of AAPA.

Applicants wish to defer response to this rejection as it is provisional.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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CUSTOMER NUMBER

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